CLAIMS

What is claimed is:

1. A method comprising:

controlling multicast traffic in a layer 2 network, the layer 2 network including a plurality of devices associated with the network, the plurality of devices including a transmitter, a receiver, and a layer 2 device, the transmitter and the receiver coupled to the layer 2 device, wherein controlling the multicast traffic includes

sending a multicast traffic control protocol query from the layer 2 device to the receiver on the layer 2 network;

receiving a multicast traffic control protocol report in response to the multicast traffic control protocol query; and

determining whether to perform multicast traffic control protocol pruning on the layer 2 network from the layer 2 device based on the report received.

2. The method of claim 1 wherein the layer 2 device has a plurality of ports to which the multicast traffic is selectively forwarded, wherein the transmitter and the receiver are joined to one or more of the ports, and wherein determining whether to perform multicast traffic control protocol pruning on the layer 2 network from the layer 2 device based on the report received includes maintaining a multicast traffic control protocol pruning table to store information regarding which ports are joined.

3. The method of claim 1 further comprising generating periodic multicast traffic control protocol queries, and wherein sending a multicast traffic control protocol query from the layer 2 device to the receiver on the layer 2 network further includes sending at least one of the periodic queries.

4. The method of claim 1 further comprising ensuring that at least one device on the layer 2 network is sending the multicast traffic control protocol query at selected time intervals.

5. The method of claim 4 wherein ensuring that at least one device on the layer 2 network is sending the multicast traffic control protocol query at selected time intervals includes executing a multicast traffic control protocol querier algorithm.

6. An article of manufacture comprising a machine accessible medium providing a plurality of machine readable instructions that, when executed by a machine, cause the machine to perform operations comprising:

controlling multicast traffic in a layer 2 network, the layer 2 network including a plurality of devices associated with the network, the plurality of devices including a transmitter, a receiver, and a layer 2 device, the transmitter and the receiver coupled to the layer 2 device, wherein controlling the multicast traffic includes

sending a multicast traffic control protocol query from the layer 2 device to the receiver on the layer 2 network;

receiving a multicast traffic control protocol report in response to the multicast traffic control protocol query; and

determining whether to perform multicast traffic control protocol pruning on the layer 2 network from the layer 2 device based on the report received.

7. The article of manufacture of claim 6 wherein the layer 2 device has a plurality of ports to which the multicast traffic is selectively forwarded, wherein the transmitter and the receiver are joined to one or more of the ports, and wherein determining whether to perform multicast traffic control protocol pruning on the layer 2 network from the layer 2 device based on the report received includes maintaining a multicast traffic control protocol pruning table to store information regarding which ports are joined.

8. The article of manufacture of claim 6 further comprising generating periodic multicast traffic control protocol queries, and wherein sending a multicast traffic control protocol query from the layer 2 device to the receiver on the layer 2 network further includes sending at least one of the periodic queries.

9. The article of manufacture of claim 6 further comprising ensuring that at least one device on the layer 2 network is sending the multicast traffic control protocol query at selected time intervals.

10. The article of manufacture of claim 9 wherein ensuring that at least one device on the layer 2 network is sending the multicast traffic control protocol query at selected time intervals includes executing a multicast traffic control protocol querier algorithm.

11. A method comprising:

controlling multicast traffic in a layer 2 network, the layer 2 network including a plurality of devices associated with the network, the plurality of devices including a transmitter, a receiver, and a layer 2 device, the transmitter and the receiver coupled to one or more of the ports, wherein controlling the multicast traffic includes

sending an Internet Group Management Protocol (IGMP) query from the layer 2 device to the receiver on the layer 2 network;

receiving an IGMP report in response to the IGMP query; and

determining whether to perform IGMP pruning on the layer 2 network from the layer 2 device based on the report received.

12. The method of claim 11 wherein the layer 2 device has a plurality of ports to which the multicast traffic is selectively forwarded, wherein the transmitter and the receiver are joined to one or more of the ports, and wherein determining whether to perform IGMP pruning on the layer 2 network from the layer 2 device based on the report received includes maintaining an IGMP pruning table to store information regarding which ports are joined.

13. The method of claim 11 further comprising generating periodic IGMP queries, and wherein sending an Internet Group Management Protocol (IGMP) query from the layer 2 device to the receiver on the layer 2 network further includes sending at least one of the periodic queries.

14. The method of claim 11 further comprising ensuring that at least one device on the layer 2 network is sending the IGMP queries at selected time intervals.

15. The method of claim 14 wherein ensuring that at least one device on the layer 2 network is sending the IGMP queries at selected time intervals includes executing an IGMP querier algorithm.

16. An apparatus comprising:

a layer 2 device;

a multicast traffic control protocol querier algorithm executable from the layer 2 device to send multicast traffic control protocol queries to a layer 2 network which includes the layer 2 device; and

a multicast traffic control protocol pruning algorithm executable from the layer 2 device to control multicast traffic in the layer 2 network.

17. The apparatus of claim 16 wherein the layer 2 device includes a plurality of ports.

18. The apparatus of claim 16 wherein the layer 2 device includes a switch.

19. The apparatus of claim 16 wherein the layer 2 network comprises a Virtual Local Area Network (VLAN).

20. The apparatus of claim 16 wherein the layer 2 device includes a plurality of ports and a multicast traffic control protocol pruning table to determine which ports are joined.

21. The apparatus of claim 16 wherein the multicast traffic control protocol is an Internet Group Management Protocol (IGMP).

22. The apparatus of claim 21 wherein the layer 2 device includes a plurality of ports.

23. The apparatus of claim 21 wherein the layer 2 device includes a switch.

24. The apparatus of claim 21 wherein the layer 2 network comprises a Virtual Local Area Network (VLAN).

25. The apparatus of claim 21 wherein the layer 2 device includes a plurality of ports and an IGMP pruning table to determine which ports are joined.

26. An apparatus comprising:

a layer 2 device;

means for sending multicast traffic control protocol queries to a layer 2 network which includes the layer 2 device, the means for sending multicast traffic control protocol queries being executable from the layer 2 device; and

means for controlling multicast traffic in the layer 2 network, the means for controlling multicast traffic being executable from the layer 2 device.

27. The apparatus of claim 26 wherein the layer 2 device includes a plurality of ports.

28. The apparatus of claim 26 wherein the layer 2 device includes a switch.

29. The apparatus of claim 26 wherein the layer 2 network comprises a Virtual Local Area Network (VLAN).

30. The apparatus of claim 26 wherein the layer 2 device includes a plurality of ports and means for determining which ports are joined.